

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Atty. Docket

BENNO TIEKE ET AL.

PHNL030327

Serial No.: 10/527,120

Group Art Unit: 2627

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Examiner: T.X. Dinh

Confirmation No.: 3190

MULTILAYER OPTICAL DISC HAVING A RECORDING STACK TYPE INDICATOR

Commissioner for Patents  
P.O. Box 1450  
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Sir:

APPEAL BRIEF

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(i) Real Party in Interest

The real party in interest in this application is KONINKLIJKE PHILIPS ELECTRONICS N.V. by virtue of an assignment from the inventors recorded on March 8, 2005, at Reel 016983, Frame 0440.

(ii) Related Appeals and Interferences

There are no other appeals and/or interferences related to this application.

(iii)        Status of Claims

Claims 1-8 stand finally rejected by the Examiner. Appellants hereby appeal the final rejections of claims 1-8.

(iv) Status of Amendments

There was one Response filed on January 21, 2009, after final rejection of the claims on November 21, 2008, this Response having been considered and entered by the Examiner.

(v) Summary Of Claimed Subject Matter

As claimed in claim 1, the subject invention relates to a record carrier of a writable type **(11; Fig. 1, page 4, lines 7-10)** for recording information by writing marks in a track via a beam of radiation entering through an entrance face **(47; Fig. 3; page 7, lines 11-12)** of the record carrier, the record carrier comprising:

at least a first recording layer **(40; Fig. 3; page 7, line 8)** having a first recording stack of a first type and a second recording layer **(41; Fig. 3; page 7, line 9)** having a second recording stack of a second type **(page 7, lines 25-31)**, the first recording layer being present at a position closer to the entrance face than the second recording layer **(page 7, lines 11-12)** and the first and second recording stack having different writing parameters **(page 7, lines 31-34)**;

at least one transparent spacer layer between the recording layers **(42; Fig. 3; page 7, lines 9-11)**; and

each recording layer comprising a pre-formed recording control pattern that is readable via said beam for indicating the track, and at least one recording control pattern comprising a recording stack type indicator for indicating the writing parameters of the second recording stack **(page 9, line 29 to page 10, line 12)**.

As claimed in claim 6, the subject invention relates to a device for recording a record carrier by writing marks in a track via a beam of radiation, the record carrier comprising:

at least a first recording layer **(40; Fig. 3; page 7, line 8)** having a first recording stack of a first type and a second

recording layer **(41; Fig. 3; page 7, line 9)** having a second recording stack of a second type **(page 7, lines 25-31)**, the first recording layer being present at a position closer to the entrance face than the second recording layer **(page 7, lines 11-12)** and the first and second recording stack having different writing parameters **(page 7, lines 31-34)**;

at least one transparent spacer layer between the recording layers **(42; Fig. 3; page 7, lines 9-11)**; and

each recording layer comprising a pre-formed recording control pattern that is readable via said beam for indicating the track, and at least one recording control pattern comprising a recording stack type indicator for indicating the writing parameters of the second recording stack **(page 9, line 29 to page 10, line 12)**, the device comprising:

a head **(22; Fig. 2; page 5, lines 25-30)** for providing the beam of radiation **(24; Fig. 2; page 5, lines 30-33)**;

a front-end unit **(31; Fig. 2; page 6, lines 2-7)** for generating at least one scanning signal for detecting marks in the track and for detecting the pre-formed recording control pattern;

a demodulation unit **(32; Fig. 2; page 6, lines 7-9)** for retrieving the recording stack type indicator from the scanning signal; and

a control unit **(20; Fig. 2; page 6, line 31 to page 7, line 4)** for adjusting recording parameters in the device in dependence of the recording stack type indicator retrieved from the scanning signal.





(vi) Grounds of Rejection to be Reviewed on Appeal

- (A) Whether the invention, as claimed in claims 1-3 and 6-8, is anticipated, under 35 U.S.C. 102(b), by U.S. Patent 6,370,102 to Mons et al.
- (B) Whether the invention, as claimed in claims 4 and 5, is unpatentable, under 35 U.S.C. 103(a), over Mons et al.

(vii) Arguments

**(A) Whether Claims 1-3 And 6-8 Are Anticipated By Mons et al.**

35 U.S.C. 102(b) states:

"A person shall be entitled to a patent unless -

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"(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States,...."

The Mons et al. patent discloses a multilayer record carrier and device for scanning the carrier, in which each layer is provided with a control block in which information is stored which can be used for reading the user information stored in the particular layer.

As noted in MPEP § 2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1 (as well as claim 6) includes the limitation "each recording layer comprising a pre-formed recording control pattern that is readable via said beam for indicating the track, and at least one recording control pattern comprising a recording stack

type indicator for indicating the writing parameters of the second recording stack".

In the prior Office Action, the Examiner had indicated that Mons et al. teaches this claim limitation "(Fig.3, type indicator 26. Figure 4 shows the detail of type indicator 26. See also column 5, lines 20-54)." The Examiner now states:

"First, applicant states that the reference of MONS et al does not teaches the feature of recording stack of different writing parameters. Applicant is directed to MONS et al's column 5, lines 20-54, which shows that "FIG. 4 diagrammatically shows the division of the control block 26 for the first information layer 6. The block 26 comprises a first sub-block 32 with information about the record carrier as a whole. The information may comprise a type indication of the record carrier, an indication of the number of information layers and the number of blocks of user information in the record carrier, parameters (plural) for the radiation beam for writing and reading". The phrase "parameters" in plural form which means that the parameter of each stack (layer) could have the same or different."

Appellants would like to point out to the Examiner that it is well-known in the art that the radiation beam has different parameters for writing than for reading, and that there are more than one parameter that need to be set for the radiation beam for either writing or reading. Just because Mons et al. uses the term "parameters" in plural, does not mean that Mons et al. is referring to different layers.

The portion of Mons et al. from which the Examiner is citing, i.e., col. 5, lines 23-32, states:

"The information may comprise a type indication of the record carrier, an indication of the number of information layers and the number of blocks of user information in the record carrier, parameters for the radiation beam for writing and reading, information about encryption of the stored information, a table of contents with a global indication of the user information stored in each layer, data relating to a group of record carriers of which this record carrier forms part, and indications of the publisher and manufacturer."

There is no disclosure in Mons et al. that the layers may differ and as such may each required different parameters for writing/reading. In the control block of Mons et al., there is no distinguishing of the parameters of the radiation beam for writing and reading for each layer. Further, there is no disclosure or suggestion that the writing parameters for the second stack should be in the control block in each recording layer.

Appellants reiterate the pronouncement of the CAFC "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Appellants therefore submit that the subject invention is not anticipated by Mons et al.

**(B) Whether Claims 4 And 5 Are Unpatentable Over Mons et al.**

The above arguments concerning Mons et al. are incorporated herein.

**(B.1) Claim 4**

Claim 4 includes the limitation "wherein the recording control pattern comprises a recording stack type indicator that is an indicator of a polarity of a push-pull signal to be used for scanning the track".

The Examiner states:

"MONS et al discloses all the subject matter as claimed in claim 4, except to specifically show that the recording control pattern indicates of a polarity of a push-pull signal to be used for scanning the track. However, the technique of using push-pull signals is old and widely used in the optical recording art as admitted by applicant in the specification, particular in figure 5A and page 4, lines 28 to page 5, line 3. Therefore, anyone of ordinary skill in the art at the time of the invention was made would have been motivated to modify the type indicator of MONS et al's (figures 3 and 4, type indicator 26) to indicate polarity of push-pull signals as claimed."

First, as indicated above, Appellants strenuously contend that Mons et al. neither discloses nor suggests the subject matter as claimed in claim 4, i.e., the subject matter claimed in claim 1 from which claim 4 depends. Further, the noted section of Appellants' specification is referring to a signal arising in the auxiliary detectors, i.e., page 4 lines 29-31: "The variations cause an additional signal to arise in auxiliary detectors, e.g. in the push-pull channel generated by partial detectors in the central spot in a head of a scanning device." However, the significance of this only becomes apparent when the first and second layers are of different types, i.e., conventional stack and inverted stack. This is described in the specification on page 8, line 28 to page 9, line 28. Since Mons et al. neither discloses nor suggests that the

first and second layers are different types, then there cannot be any disclosure therein for using the polarity of the push-pull signal as the recording stack type indicator.

Based on the above arguments, Appellants believe that the subject invention is neither anticipated nor rendered obvious by the prior art and is patentable thereover. Therefore, Appellants respectfully request that this Board reverse the decisions of the Examiner and allow this application to pass on to issue.

Respectfully submitted,

by           /Edward W. Goodman/            
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1. (Previously Presented) A record carrier of a writable type for recording information by writing marks in a track via a beam of radiation entering through an entrance face of the record carrier, the record carrier comprising:

at least a first recording layer having a first recording stack of a first type and a second recording layer having a second recording stack of a second type, the first recording layer being present at a position closer to the entrance face than the second recording layer and the first and second recording stack having different writing parameters;

at least one transparent spacer layer between the recording layers; and

each recording layer comprising a pre-formed recording control pattern that is readable via said beam for indicating the track, and at least one recording control pattern comprising a recording stack type indicator for indicating the writing parameters of the second recording stack.

2. (Previously Presented) The record carrier as claimed in claim 1, wherein the at least one recording control pattern of the first recording layer comprises a recording stack type indicator for indicating the writing parameters of the first recording stack, and the at least one recording control pattern of the second recording

layer comprises the recording stack type indicator for indicating the writing parameters of the second recording stack.

3. (Previously Presented) The record carrier as claimed in claim 1, wherein the at least one recording control pattern of the first recording layer comprises a recording stack type indicator for indicating the writing parameters of the second recording stack.

4. (Previously Presented) The record carrier as claimed in claim 1, wherein the recording control pattern comprises a recording stack type indicator that is an indicator of a polarity of a push-pull signal to be used for scanning the track.

5. (Previously Presented) The record carrier as claimed in claim 1, wherein the pre-formed recording control pattern is constituted by a pregroove indicating the position of the track, the pregroove exhibiting a wobble constituted by displacements of the pregroove in a direction transverse to the longitudinal direction of the track, and the wobble exhibiting a modulation representing the recording stack type indicator.

6. (Previously Presented) A device for recording a record carrier by writing marks in a track via a beam of radiation, the record carrier comprising:

at least a first recording layer having a first recording stack of a first type and a second recording layer having a second

recording stack of a second type, the first recording layer being present at a position closer to the entrance face than the second recording layer and the first and second recording stack having different writing parameters;

at least one transparent spacer layer between the recording layers; and

each recording layer comprising a pre-formed recording control pattern that is readable via said beam for indicating the track, and at least one recording control pattern comprising a recording stack type indicator for indicating the writing parameters of the second recording stack,

the device comprising:

a head for providing the beam of radiation;

a front-end unit for generating at least one scanning signal for detecting marks in the track and for detecting the pre-formed recording control pattern;

a demodulation unit for retrieving the recording stack type indicator from the scanning signal; and

a control unit for adjusting recording parameters in the device in dependence of the recording stack type indicator retrieved from the scanning signal.

7. (Previously Presented) The device as claimed in claim 5, wherein the control unit is arranged for adjusting as recording parameters gain or polarity settings of a radial servo unit.

8. (Previously Presented)The device as claimed in claim 5, wherein the control unit is arranged for adjusting, as recording parameters, a write strategy or a power control procedure for recording data on the second recording layer.

(ix)        Evidence Appendix

There is no evidence which had been submitted under 37 C.F.R. 1.130, 1.131 or 1.132, or any other evidence entered by the Examiner and relied upon by Appellant in this Appeal.

(x) Related Proceedings Appendix

Since there were no proceedings identified in section (ii) herein, there are no decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 C.F.R. 41.37.